

## Summary

### Contents

#### CONTENTS



#### What's New

Includes: events; projects; publications



#### Hot Topics

Includes: latest data and where to find it



#### Spotlight on...

Includes: Spotlight on Tourism



#### Feature Article

Includes: How connected are we?



#### How Can We Help

Includes: tips for finding information on the ABS website; services we offer; plus upcoming training and events



#### Statistical Literacy

Includes: tips for building your statistical know-how



#### Recent Releases

Includes: publications containing Tasmanian data that we thought you'd like to know about



#### Subscribe Me

Includes: how to receive free email notification advising you when a publication has been released; RSS feeds; bookmarking

## In this issue

### NOTES

### FORTHCOMING ISSUES

#### ISSUE (QUARTER)

June 2010

September 2010

#### Release Date

8 June 2010

7 September 2010

### INTRODUCTION

Welcome to the March 2010 issue of Tasmanian Statistical News.

This issue's hot topics are the labour force, education, our ageing population and retirement intentions, while the spotlight is on tourism.

How connected are we? Our feature article explores household use of information technology, and children's use of internet and mobile phones.

Also discussed this issue are aspects of statistical literacy, with a focus on understanding statistical concepts.

We hope you find this newsletter interesting and informative, and we welcome your feedback and comments.

### INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

### SUMMARY COMMENTARY

## What's New



### WHAT'S NEW

Artwork Launch - The Embodiment of Numbers

News from the Environment and Agriculture Business Statistics Centre

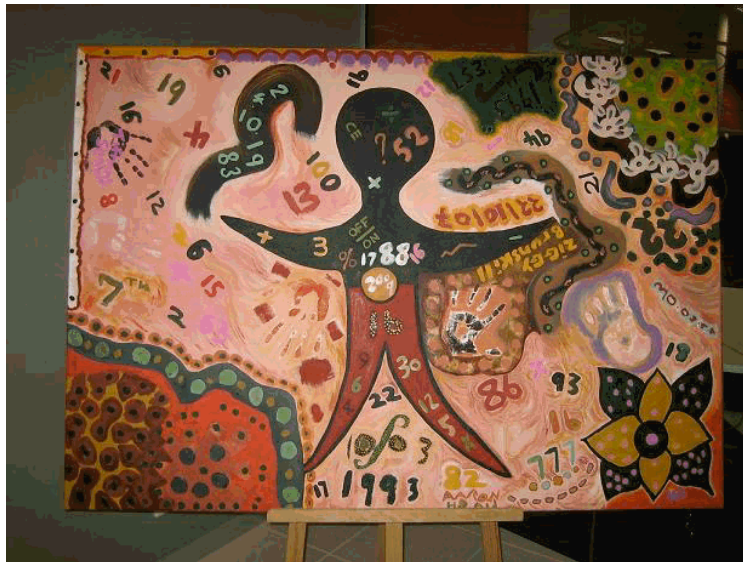
## **ARTWORK LAUNCH - THE EMBODIMENT OF NUMBERS**

The Tasmanian ABS office recently hosted the unveiling of a new item of Tasmanian Aboriginal art.

Commissioned by the Hobart Office, **The Embodiment of Numbers** was painted by three young Tasmanian Aboriginal people. It reflects images of significance in the lives of the young Aboriginal people as well as numbers which are relevant to the work of the ABS. Painting took place under the guidance of meenah mienne, an arts mentoring program for young Aboriginal offenders and youth at risk.

The unveiling ceremony was attended by representatives of meenah mienne, the Tasmanian Aboriginal community, the ABS, and local, state and commonwealth governments.

The painting will go on permanent display in the foyer of the Hobart Office.



[Back to top](#)

## **NEWS FROM THE ENVIRONMENT AND AGRICULTURE BUSINESS STATISTICS CENTRE**

Hobart's Environment and Agriculture Business Statistics Centre (BSC) is busy with the upcoming releases of commodity and water estimates from the Agricultural Survey 2009. Final estimates for agricultural commodities (ie area of production of crops, livestock numbers) will be released in [Agricultural Commodities, Australia](#) (ABS cat. no. 7121.0) on 9 April 2010. Final water estimates (ie type and area of crops irrigated, water sources, irrigation methods) will be released in [Water Use on Australian Farms](#) (ABS cat. no. 4618.0).

In December 2009, the data from the benchmark Land Management Practices Survey of land owners in the Great Barrier Reef catchments was released in [Land Management Practices in the Great Barrier Reef Catchment](#) (ABS cat. no. 4619.0). The survey was funded under the Australian Government's Reef Rescue Program, with the data assisting in targeting areas where investments are required in order to change farming practices. Further data from the survey are due to be released in March 2010. For more information on this release, email: [environment@abs.gov.au](mailto:environment@abs.gov.au).

The BSC is continuing its publication format review and looking to find out more from data users so that environmental and agricultural data can be more easily used by a wider range of individuals. To make contributions to this review process, phone (03) 6222 5846 or email: [agriculture.statistics@abs.gov.au](mailto:agriculture.statistics@abs.gov.au).

[Back to top](#)

## **2011 CENSUS IS COMING!**

The 2011 Population and Housing Census is coming - and it's going to be huge!

To give you an idea, the last census in 2006 cost \$300 million and required processing 10 million forms making it the largest peacetime logistics operation in the history of Australia.

The key to achieving this feat is planning. The Australian Bureau of Statistics began planning for the 2011 Census way back in 2005, but you might have noticed that our efforts are really starting to ramp up now. The Tasmanian office staff have begun meeting local agencies around the state in order to find out as much information as possible about the local areas and its people.

One of the biggest challenges facing Census Collectors is determining which dwellings were unoccupied on the night of the Census. That is, when a Census Collector knocks on a door to either deliver or collect a form and nobody answers, how does the collector know if he or she has to come back at another time, or if the house was actually unoccupied that night? The answer to this question directly impacts our population and housing estimates. The more information we can give the Census Collectors the more accurate the data will be!

So if you work for an agency which can help the ABS determine in advance which houses are unoccupied (for example, you have a list of untenanted apartments, or houses that have been recently vacated, or you know which shacks in your area have been empty for years) please come and have a chat with our Census team or drop Ruth McArdle, our new Census Manager, a line on 6222 5767.

For further information contact [tasmania.statistics@abs.gov.au](mailto:tasmania.statistics@abs.gov.au) or check out our [2011 Census of Population and Housing Local & Regional Engagement Strategy](#) brochure (ABS cat. no. 2911.0.55.001).

[Back to top](#)

## **GEOGRAPHIC INFORMATION SYSTEMS FORUM**

The Australian Bureau of Statistics recently hosted a Geographic Information Systems (GIS) forum in its Hobart Office. The forum focused on products,

processes and practices which would ensure that place-based data is collected, disseminated, and utilized in the most effective manner possible across agencies.

Several presentations were made by people working in the Tasmanian GIS community. The keynote session was led by Greg Pole who presented a picture of the Queensland Government's COMSIS. Presentations were also made by Michael Giudici (TASSIC), Ian Hughes (DIER), David Haynes (DHHS), Louise Hawker (DPaC/SIU) and Paul Williams (ABS). All of the presentations were well received and the workshop attendees enjoyed both lively discussions and great networking opportunities.

The forum participants agreed that there was a strong need for all agencies, individually and collectively - and at all levels - to strongly and cooperatively pursue principles for the governance, discoverability and accessibility of geographic data. The forum agreement supports current negotiations between the Department of Premier and Cabinet and the Australian Bureau of Statistics to create Information Sharing principles that enunciate a whole-of-government approach to valuing, governing and coordinating 'data as an asset'.

It is hoped that these principles will improve the efficacy - and increase the number - of cross-agency statistical projects, and ultimately improve the quality of evidence-based decision making in Tasmania.

[Back to top](#)

## Hot Topics



### HOT TOPICS

**Tasmanian unemployment rate comparable to or lower than the national rate**

**Preliminary school results are out!**

**Ageing population**

**Retirement intentions**

#### TASMANIAN UNEMPLOYMENT RATE COMPARABLE TO OR LOWER THAN THE NATIONAL RATE

Tasmania's economic good fortune continues to be expressed in unemployment rates lower than or equal to national rates. Since June 2008, Tasmania has recorded levels of unemployment at or below the national rate.

The trend unemployment rate for Tasmania in January 2010 was 5.4%, with an estimated 13,300 people unemployed. Of these, 57.9% were male. The national unemployment rate was also 5.4%.

At the same time there were an estimated 232,200 employed people in Tasmania. Of these 154,400 (66.5%) were employed full-time. Males represented 66.0% of full-time workers.

Tasmania's labour force participation rate in January was 60.2% compared to the national rate of 65.3%.

Further information is available in [Labour Force, Australia, Jan 2010](#) (ABS cat. no. 6202.0).

[Back to top](#)

#### PRELIMINARY SCHOOL RESULTS ARE OUT!

[Schools, Australia, Preliminary, 2009](#) (ABS cat. no. 4220.0) recorded 274 schools in Tasmania in 2009. Of these, 207 were government, 37 were Catholic and 30 independent. This was a reduction of 3 schools from 2008, all from the government sector.

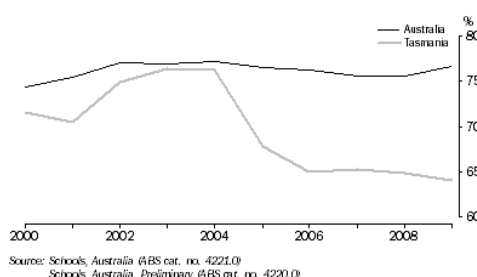
Full-time student numbers decreased by 0.8%, from 81,591 in 2008 to 80,907 in 2009.

In 2009, Tasmanian education underwent a significant restructure of post-year 10 education. This reform, entitled Tasmania Tomorrow, created three new statutory organisations (called the Tasmanian Academy, the Tasmanian Polytechnic and the Tasmanian Skills Institute) from the merger of state government colleges (years 11 and 12) and TAFE Tasmania. In 2009 four of Tasmania's eight government colleges, along with TAFE Tasmania, were restructured and brought under the authority of the Tasmanian Academy and the Tasmanian Polytechnic. The four remaining colleges continued under the authority of the Tasmanian Department of Education (TDE) and are planned to transition to the new structure by 2012. School Census data from the Tasmanian Polytechnic and the Tasmanian Academy were combined with TDE data to provide the National Schools Statistics Collection (NSSC) data submission for Tasmanian government schools. TDE undertook a process of data collection, cleaning, reconciliation and application of scope to ensure that the data provided to the NSSC fully complied with collection definitions.

One of the primary aims of the Tasmania Tomorrow initiative is to improve the apparent retention rate (ARR) from year 10 to year 12 in Tasmania. The ARR is the number of school students in a designated level-year of education expressed as a percentage of their respective cohort group in a base year. For example, the 2009 ARR for year 10 to year 12, the cohort group in the base year would be the number of year 10 students in 2007, and the designated level-year of education would be the number of year 12 students in 2009.

In 2009 Tasmania's apparent retention rate of full-time students year 10 to year 12 was 64.1%. This represented a decrease from the 2008 rate of 64.9%. The Tasmanian ARR has continued to fall in recent years, from a high of 76.4% in 2003, while the national ARR has remained relatively steady, in the range between 75 and 77% over the same period.

#### APPARENT RETENTION RATE



[Back to top](#)

## AGEING POPULATION

Australia's population, like that of most developed countries, is ageing as a result of sustained low fertility and increasing life expectancy. This is resulting in proportionally fewer children (under 15 years of age) in the population. The median age (the age at which half the population is older and half is younger) of the Australian population has increased by 5.1 years over the last two decades, from 31.8 years at 30 June 1989 to 36.9 years at 30 June 2009. Between 30 June 2008 and 30 June 2009 the median age remained steady at 36.9.

At 30 June 2009, Tasmania had the oldest population of all the states and territories with a median age of 39.6 years. The second oldest was South Australia with a median age of 39.1 years, followed by New South Wales (37.1 years), Victoria (37.0 years), Western Australia (36.3 years), Queensland (36.2 years), the Australian Capital Territory (34.7 years) and the Northern Territory (31.2 years).

Tasmania experienced the largest increase in median age over the last 20 years, increasing by 7.8 years from 31.8 years in 1989 to 39.6 years in 2009. The emigration of younger adults from Tasmania to the Australian mainland has contributed to this accelerated ageing, see [Migration, Australia](#) (ABS cat. no. 3412.0).

The sex ratio relates to the number of males per 100 females in a population or subpopulation. The Australian sex ratio at birth is approximately 105 males per 100 females. Higher male mortality rates at younger ages results in the ratio approaching 100 for the 30-64 years age group. Net Overseas Migration can also influence the sex ratio, especially in the younger working ages where there is often a greater proportion of male migrants. Above age 65, the sex ratio reduces markedly due to the impact of higher male mortality on this population group.

At 30 June 2009, the sex ratio of the total population for Australia was 99.1 males per 100 females. At age 0, the sex ratio for Australia in 2009 was 105.3 males per 100 females. This excess of males in the earlier years contrasts with the opposite situation in the older years and for the total population which can be attributed to female longevity. In 2008-09, Tasmania had the lowest sex ratio, with 97.4 males per 100 females.

In 2006-2008, life expectancy at birth for Tasmanian males was 77.7 years and 82.3 years for females.

For further information on life expectancy, see [Life Tables, Tasmania](#) (ABS cat. no. 3302.6.55.001)

For further information on population by age and sex, see [Population by Age and Sex, Australian States and Territories](#) (ABS cat. no. 3201.0)

[Back to top](#)

## RETIREMENT INTENTIONS

[Retirement and Retirement Intentions, Australia, July 2008 to June 2009](#) (ABS cat. no. 6238.0) identified 101,800 persons in the labour force in Tasmania aged 45 years and over, with 99,800 (98%) of those being employed. Of employed persons aged 45 years and over, 35,200 (35%) usually worked part-time in their main job. Most of these part-time workers (73%) were female.

While 30% of persons in the labour force aged 45 years and over didn't know at which age they intend to retire, 32% indicated they intended to retire between 65-69 years of age, and 19% between 60-64 years.

The average age of intended retirement in Tasmania has increased from 61.1 years (females 59.6 years, males 62.1 years) in 2004-05 to 63.0 years (females 62.0 years, males 63.8 years) in 2008-09.

### ABS definitions:

#### Employed

People who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
  - away from work for less than four weeks up to the end of the reference week; or
  - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
  - away from work as a standard work or shift arrangement; or
  - on strike or locked out; or
  - on workers' compensation and expected to return to their job; or
  - were employers or own account workers who had a job, business or farm, but were not at work.

#### Intends to retire from the labour force

Those people who indicated that they intend to give up all labour force activity, that is working or looking for work.

#### Labour Force

The civilian population can be split into two mutually exclusive groups: the labour force (employed and unemployed people) and people not in the labour force.

#### Part-time workers

Employed people who usually work less than 35 hours a week (in all jobs).

[Back to top](#)

## Spotlight on...



### SPOTLIGHT ON TOURISM

**Tourism remains buoyant  
Parks prime drawcard**

## TOURISM REMAINS BUOYANT

Despite the world-wide economic downturn, visitors have been flocking to Tasmanian shores, with 917,100 visitors to Tasmania arriving on scheduled air or seas services in the year ending September 2009 (excluding cruise ships and navy ships). This was an increase of 4% compared with the same period the previous year.

Most (86%) visitors to Tasmania hailed from interstate: 45% from Victoria, followed by New South Wales (25%) and Queensland (14%). Of all interstate visitors, 72% were leisure visitors, whose main purpose for visiting was for a holiday or to visit family and friends. Of the 143,600 overseas visitors, 28% were from Asia, 20% from Europe, 19% from USA/Canada, 18% from the UK and 9% from New Zealand.

The 2008-09 cruise ship season began in early November 2008 and went through to the start of April 2009. During this time, 21 vessels visited Tasmania for a total of 66 visits, bringing 105,400 passengers and crew to the state. This was an increase of 22,400 people (or 27%) on the 2007-08 cruise ship season. Most (75%) visitors came from overseas, of which 36% were from the USA and 12% from the UK.

In trend terms, takings from Hotels, Motels and Serviced Apartments with 15 or more rooms in Tasmania increased 7.0% between the September quarter 2008 and the September quarter 2009, from \$47.1m to \$50.4m.

Room occupancy rates increased by 3.2 percentage points for the same period, from 59.9% to 63.1%

Further information is available in [Tourist Accommodation, Small Area Data, Tasmania](#) (ABS cat. no. 8635.6.55.001) or visit the **Tourism Tasmania** website: <http://www.tourism.tas.gov.au/>

[Back to top](#)

## PARKS PRIME DRAWCARD

The Tasmanian Parks and Wildlife Service manages around 37% of the area of Tasmania. Tasmania has 19 national parks and over 420 other reserves which offer a variety of activities from easy short walks to challenging extended bushwalks, camping, cave tours and a chance to get up close and personal with native wildlife. The parks range from remote alpine areas to stretches of spectacular coastline, pockets of ancient rainforest to forests of dry eucalypt. Besides the many and varied recreational opportunities the reserves afford, many have been declared to protect rare or endangered species of plants and animals. All play a vital role in preserving and maintaining the stunning diversity of Tasmania's natural and cultural heritage.

Freycinet and Mt Field were the first national parks proclaimed in Tasmania in 1916. Despite the world being at war, the importance of preserving these areas for all time and for all people was seen as a priority. Six years later, in 1922, a scenic reserve and wildlife sanctuary was established between Cradle Mountain and Lake St Clair. This showed incredible foresight, as today these sites remain iconic places in terms of annual visitation. In 2007-08 visitors to the 8 national parks for which there are reliable figures topped 714,000. Freycinet was the most visited park in the state with 207,225 visitors, followed by Cradle Mountain (177,040), Mt Field (115,490) and Lake St Clair (92,764).

Further information is available on the **Parks and Wildlife Service** website: <http://www.parks.tas.gov.au/index.aspx?base=1>

[Back to top](#)

## Feature Article



### FEATURE ARTICLE

## HOW CONNECTED ARE WE?

### Introduction

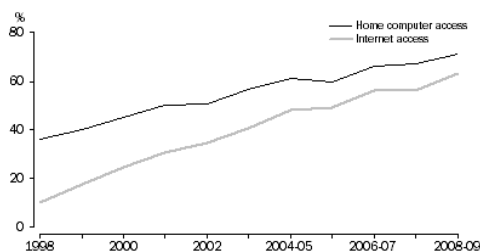
High speed broadband is increasingly important to the way we communicate, learn and do business. In 2009, the Federal Government announced plans to establish a new super fast National Broadband Network (NBN) in Australia, with the aim of providing affordable, fast broadband to every house, hospital, school and business across the country, no matter the location. Our urban, rural and regional areas will be connected as never before! This initiative is expected to not only transform the telecommunications sector, but underpin future productivity growth and boost our international competitiveness.

Tasmania has been at the forefront of developing the NBN. Selected to lead the way, three Tasmanian townships have been selected to pilot the roll out of effective, ultra fast broadband infrastructure across regional and suburban Tasmania through fibre optic technology. The Tasmanian Premier has predicted that by 2014, Tasmania will be the most connected place on the planet.

### Growth of information technology

The number of households in Tasmania with access to a home computer has more than doubled since 1998, increasing from 66,000 (36%) in 1998 to 141,000 (71%) in 2008-09. At the same time, the number of households with internet access has grown rapidly, increasing from 19,000 (10%) in 1998 to 126,000 (63%) in 2008-09.

**HOUSEHOLDS WITH INFORMATION TECHNOLOGY ACCESS, Tasmania 2008-09**

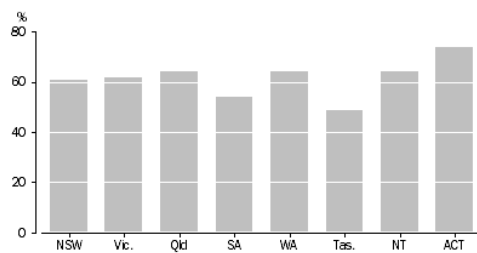


Source: Household Use of Information Technology, Australia, 2008-09 (ABS cat. no. 8146.0)

### Type of internet access

Although Tasmania still has the lowest proportion of households with a broadband internet connection, it has increased markedly from 35,000 (17%) in 2005-06 to 98,000 (49%) in 2008-09. Previously, most of Tasmania's internet access has been via dial-up, but this trend has reversed over time. In 2008-09, 78% of households in Tasmania with internet access had broadband compared to 21% with dial-up.

#### HOUSEHOLDS WITH BROADBAND, 2008-09



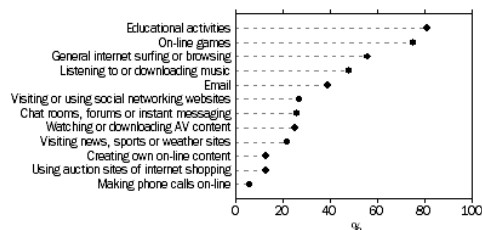
Source: Household Use of Information Technology, Australia, 2008-09 (ABS cat. no. 8146.0)

Households are less likely to be connected to a computer, the internet and/or broadband if they have no children under 15 years; are located in ex-metropolitan areas of Australia; or have lower household incomes.

#### Children and the internet

The 2009 Children's Participation in Cultural and Leisure Activities survey reported that of the 64,000 children in Tasmania aged 5-14 years, an estimated 49,000 (76%) used the internet during the 12 months prior to April 2009. Of these, 64% accessed the internet at home, and 65% at school. The main types of internet activity usually conducted at home were educational activities (81%), on-line games (75%), general internet surfing or browsing (56%), listening to or downloading music (48%) and emailing (39%).

#### TYPE OF INTERNET ACTIVITY USUALLY DONE AT HOME, April 2009



(a) Children aged 5-14 years

Source: Household Use of Information Technology, Australia, 2008-09 (ABS cat. no. 8146.0)

#### Children with mobile phones

In April 2009, an estimated 26,000 children aged 5-14 years in Tasmania had access to their own mobile phone. This was the highest proportion (41%) of all states and territories, followed by Western Australia (33%), Queensland and South Australia (31%), New South Wales and Victoria (30%), Australian Capital Territory (29%) and Northern Territory (27%).

More children in Tasmania used their mobile phone for contacting friends (57%) than for contacting family (37%). Most (94%) did not use a mobile phone to access the internet.

#### Sources

Children's Participation in Cultural and Leisure Activities, Australia, 2009 (ABS cat. no. 4901.0)

Household Use of Information Technology, Australia, 2008-09 (ABS cat. no. 8146.0)

21/10/09 David Bartlett MP Address to the National Press Club: [http://www.auroraenergy.com.au/pdf/nbn/David\\_Bartlett\\_address\\_to\\_national\\_press\\_club.pdf](http://www.auroraenergy.com.au/pdf/nbn/David_Bartlett_address_to_national_press_club.pdf)

07/04/09 Prime Minister/treasurer/Minister for Finance/Minister for Broadband: New National Broadband Network Media Release: [http://www.minister.dbcde.gov.au/media/media\\_releases/2009/022/](http://www.minister.dbcde.gov.au/media/media_releases/2009/022/)

## How Can We Help



### HOW CAN WE HELP

General statistical inquiries  
Upcoming training and events  
Statistical training

#### GENERAL STATISTICAL INQUIRIES

We can help you to make a more informed decision...



Our consultants are available to discuss your information needs, and assist you to obtain the data which will best meet your requirements.

A range of published data is available free of charge on our website and more detailed data can be tailored to your requirements as part of our priced information consultancy service. Contact our consultants who will discuss your needs in detail and provide you with an obligation free quote.

Phone: 1300 135 070 (between 9.00am-5.00pm EST)

Email: [client.services@abs.gov.au](mailto:client.services@abs.gov.au)

Fax: 1300 135 211

Post: Client Services, ABS, GPO Box 796, Sydney, 2001

[Online Inquiry Form](#)

To find out more about how we can customise data tailored to meet your needs check out our [Information Consultancy Services](#) brochure online.

[Back to top](#)

## UPCOMING TRAINING AND EVENTS



### NatStats 2010 Conference

The Australian Bureau of Statistics will be hosting another NatStats conference at the Sydney Convention and Exhibition Centre, Darling Harbour on 15 - 17 September 2010.

NatStats 2010 will build on the enthusiasm and passion generated by delegates at NatStats08 and aims to build stronger links with key stakeholders, strengthen the understanding of statistical issues within and across governments, and consolidate support for current and emerging statistical initiatives.

An exciting program is being developed and will address a range of issues regarding national statistics. If you would like to hear more about NatStats 2010 Conference, or have any suggestions, please email [natstats@nss.gov.au](mailto:natstats@nss.gov.au).

### Turning Data into Information

**Overview:** This two-day course is intended to provide skills in interpreting, communicating and displaying data clearly and effectively. Participants will gain skills in transforming data into meaningful written information, particularly in respect to social policy issues.

**Format:** 2 day workshop

**Who should attend:** People working with data who wish to extract relevant information and communicate that information to a variety of audiences, e.g. through written reports.

**Course Outcomes:** At the end of this program, participants should be able to:

- Understand how the collection and compilation of data affect its usefulness, quality and relevance;
- Draw conclusions from the analysis;
- Communicate results effectively;
- Present information using tables and graphs;
- Recognise possible pitfalls in analysis.

**Cost:** \$750 (inc. GST) per person

**Date:** Thursday 15 and Friday 16 April 2010, 9.00 am - 5.00 pm

**Venue:** Australian Bureau of Statistics, 200 Collins Street, Hobart

If you wish to enrol or want more information please email: [tasmania.statistics@abs.gov.au](mailto:tasmania.statistics@abs.gov.au).

### Valuing Australia's Environment

**Overview:** This course focuses on the emerging discipline of environmental accounting which strives to organise environmental statistics in a consistent and structured system and within a framework that allows integration of economic and environmental information.

**Format:** 1 day course

**Who should attend:** People requiring an overview of environmental statistics and their use; or who are new to environment and natural resource statistics; or are working in the field of environmental accounting or national accounts.

**Course Outcomes:** Understanding the frameworks that underpin environmental accounting; the processes, frameworks and classifications involved in compiling environmental accounts; and the various uses and users of environmental accounts. Distinguishing types of environmental accounts and what they measure.

**Cost:** \$450 (inc. GST) per person

**Date:** Tuesday 25 May 2010, 9.00 am - 5.00 pm

**Venue:** Australian Bureau of Statistics, 200 Collins Street, Hobart

If you wish to enrol or want more information please contact Sharna Stinson (03 6222 5982) or email: [tasmania.statistics@abs.gov.au](mailto:tasmania.statistics@abs.gov.au).

[Back to top](#)

## STATISTICAL TRAINING

[Our training programs](#) are conducted by ABS staff with expertise in designing questionnaires, analysing data and managing the survey process. The

## Statistical Literacy



### STATISTICAL LITERACY

#### UNDERSTANDING STATISTICS

Making sense of statistics is vital for informed decision-making. To build your statistical know-how check out [Understanding Statistics](#) on the ABS website at [www.abs.gov.au/understandingstatistics](http://www.abs.gov.au/understandingstatistics). There are some excellent resources contained within these pages, some are very basic, whilst others go in to more depth. There are quizzes, video tutorials and online presentations. A great resource for anyone wanting to know more about statistics and the ABS website.

#### UNDERSTANDING STATISTICAL CONCEPTS

In today's information-rich society, we encounter statistical information on a daily basis, ranging from unemployment rates, retail figures and cancer rates, to football ladders and cricket scores. Statistics tell interesting stories and enable us to make sense of the world. Statistics are essential for research, planning and decision-making purposes.

There are several concepts that recur throughout the literature on statistical literacy. These fall into four key areas and can be considered in a practical manner as 'criteria' on which to base statistical literacy:

- Data awareness
- The ability to understand statistical concepts
- The ability to analyse, interpret and evaluate statistical information
- The ability to communicate statistical information and understandings

In this issue, we will focus on understanding statistical concepts. There are three basic forms of statistical representation: tables, graphs and maps.

#### Tables

The ABS presents much of its information in the form of tables where data is presented in rows and columns. By following some simple principles, information can be quickly understood from a table.

- **Headings**  
Look at the heading at the top of the table. There will be an overall description of the information presented in the whole table. By examining these headings it will be apparent fairly quickly whether the table will be useful to you.
- **Rows and columns**  
The data in a table is presented in rows (horizontal) and columns (vertical). The intersection of each column and row is called a cell. Each row and column has a heading.
- **Row headings**  
Row headings give an explanation of the data contained in each row of a table. The row label is often broken down into sub-headings to give more detailed information. It is important to remember that the top heading (the one furthest to the left hand side of the page) is the heading for all sub-headings indented underneath it.
- **Column headings**  
These are also broken down into sub-headings. The hierarchy is shown by horizontal lines drawn over columns to which the heading immediately above the line applies.
- **Footnotes**  
Footnotes are used to add comments and/or explanation to the data held in a table. Always read the footnotes carefully to ensure you are interpreting the data accurately.
- **Sampling error**  
Sampling error is related to the error that occurs because we are testing a sample of a population, and the sample's characteristics may differ slightly to the characteristics of the entire population.

Once you are clear on what the table is about, proceed to the actual figures and extract the information you require. Over time, you will be able to interpret tables more quickly and accurately. It is good practice, however, to be methodical and follow the steps above any time you use a table.

#### *Why is there variation in the data?*

Figures will often vary slightly from table to table due to randomisation. Introduced random error is a technique that was developed to avoid identification of individuals. Prior to the 2006 Census, the confidentiality technique applied by the ABS was to randomly adjust cells with very small values. For the 2006 Census, a new technique was developed which slightly adjusts all cells to prevent identifiable data being exposed. These adjustments result in small introduced random errors, but do not impair the value of the table as a whole.

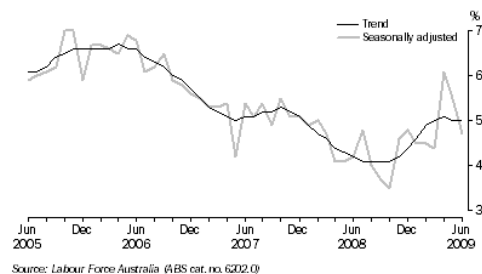
Tables which have been randomly adjusted will be internally consistent, however comparisons with other tables containing similar data may show minor discrepancies. This is the case for both customised tables and standard products. These small variations can, for the most part, be ignored.

#### Graphs

Information that is presented visually is often easier to understand. Graphs are an ideal way to show trends or differences between data. It is important to interpret scales accurately to avoid misinterpretation of the data. The ABS uses various types of graphs to illustrate different types of data:

- **Line graphs**  
Line graphs are generally used to show time series data, to capture movement and trends over time.

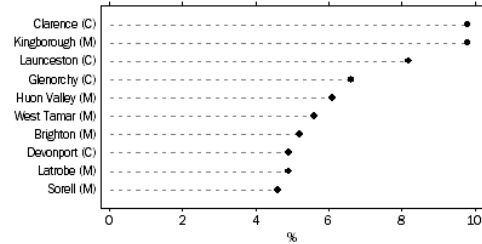




#### ■ Dot charts

Dot charts are used to show comparative values clearly. They allow a comparatively large number of categories to be displayed and have best impact when the values are ranked in descending order.

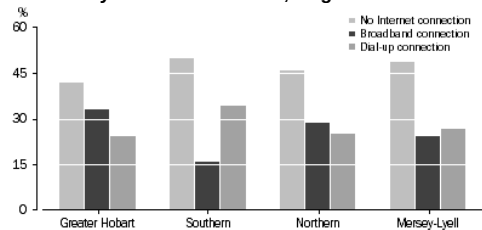
#### NEW RESIDENTIAL BUILDING APPROVALS, top 10 contributors to the state total, by local government area, Tasmania, 2007-08



#### ■ Bar or column graphs

Bar or column graphs are used when comparing data values is important, but with a limited number of categories.

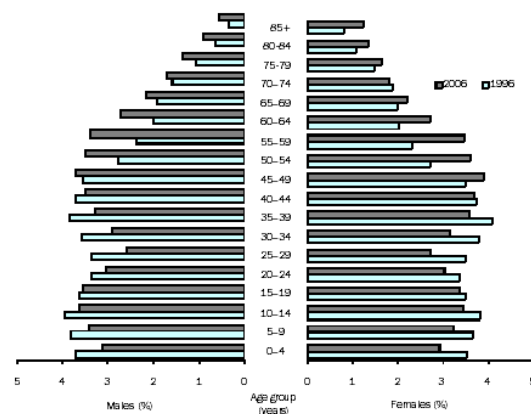
#### TYPE OF INTERNET CONNECTION, Tasmanian dwellings(a), by statistical division, August 2006



#### ■ Age pyramids

Age pyramids are used when representing the age structure of a population.

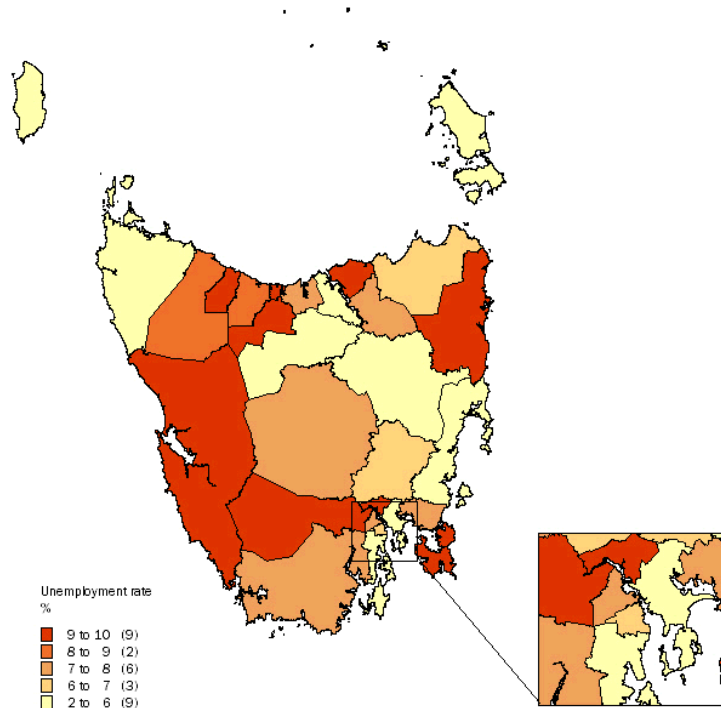
#### POPULATION CHANGE, Tasmania, 1996-2006



Maps provide a simple visual comparison between geographic areas. Legends must be interpreted accurately to fully understand information presented in this way. The map below is based on the 2006 Census. It shows the unemployment rate by local government area, identifying areas with the highest rate of unemployment in red, grading to areas with the lowest rate in yellow. In 2006, the highest rate of unemployment (10.3%) was in the George Town Local Government Area (LGA), followed by Kentish (9.6%) and Break O'Day (9.2%). The lowest rates of unemployment were in King Island (2.2%), Flinders (3.8%) and Circular Head (4.2%) respectively.

Insets can draw out finer detail, such as rates of unemployment around the Hobart area, where the highest rate of unemployment was found in the Derwent Valley (9.0%) and the lowest was in Kingborough (4.5%).

#### UNEMPLOYMENT RATE, by local government area, August 2006



Source: Census of Population and Housing, 2006  
ABS data available on request

For further explanation of terms see [Statistical Language!](#) (ABS cat. no. 1332.0.55.002)

In upcoming issues of **Tasmanian Statistical News** we will discuss other statistical literacy concepts in more detail. Meanwhile, if you would like to know more about statistical literacy and its relevance to you, check out the article: [What is statistical literacy and why is it important to be statistically literate?](#) as featured in [Tasmanian State and Regional Indicators](#) (ABS cat. no. 1307.6) or visit the [Understanding Statistics](#) portal on the ABS website.

## Recent Releases



### RECENT RELEASES

#### SELECTED RECENT RELEASES

23/02/2010 [Underemployed Workers, Australia, Sep 2009](#) (ABS cat. no. 6265.0)

Provides information on visible underemployment. Persons who worked less than 35 hours in the week prior to the survey who would have preferred to work more hours were asked about whether they were looking for work with more hours, available to start work with more hours, and their experience in looking for work with more hours. Other information includes, the duration of the current period of insufficient work, and the number of extra hours preferred. Estimates can be cross-classified by labour force demographics such as State, sex, age, marital status and birthplace.

18/02/2010 [Crime Victimization, Australia, 2008-09](#) (ABS cat. no. 4530.0)

First issue. Contains summary data on feelings of personal safety, and whether a victim of assault, threatened assault, personal robbery, household break-in, attempted break-in, motor vehicle theft, theft from a motor vehicle, other theft, malicious property damage, or sexual assault in the 12 months prior to the interview. Provides information on the most recent incident, including whether it was reported to the police. Data are classified by demographic characteristics.

04/02/2010 [Information Paper: Reinstatement of Job Vacancies Survey, Nov 2009](#) (ABS cat. no. 6354.0.55.001)

This information paper describes changes to Job Vacancies statistics, as a result of the Job Vacancies Survey (JVS) being suspended during 2008-09 and reinstated for the November 2009 survey.

04/02/2010 [Building Approvals, Australia](#) (ABS cat. no. 8731.0)

Provides the number and value of dwelling units approved by sector (public/private) and by state, number and value of new other residential dwelling units approved by type of building, and the number and value of non-residential building jobs approved by type of building (i.e. by function such as 'retail and wholesale trade', 'offices') and value ranges. State data includes the number of private sector houses approved; number and value of new other residential dwellings by type of building such as flats, units or apartments in a building of one or two storeys; number and value of non-residential building jobs by type of building and sector; and for Capital City Statistical Divisions, the total number of dwelling units approved broken down by Houses, Other Dwellings and Total Dwelling Units. Seasonally adjusted and trend estimates by state are included for the number of dwelling units and value of building approved. The quarterly value of building approved is shown in chain volume measure terms.

04/02/2010 [Retail Trade, Australia](#) (ABS cat. no. 8501.0)

Contains monthly estimates of turnover for retail establishments. Trend, seasonally adjusted and original estimates are included for industry groups and states and Australia in current price terms. More detailed current price data classified by state and industry are available from the downloads tab on the ABS website

28/01/2010 [Australia's Environment: Issues and Trends, Jan 2010](#) (ABS cat. no. 4613.0)

This is the 5th edition in a series that presents a broad selection of environmental statistics and information on topical environmental issues. By drawing on a wide range of ABS statistics and statistics from other official sources, Australia's Environment: Issues and Trends describes major aspects of Australia's environment and how these are changing over time. It is designed to assist and encourage informed decision-making, and to meet the information needs of a general readership. The material is organised into two main parts. The first part explores an issue of major environmental concern, and the issue chosen for the 2010 edition is climate change. The second part covers major trends of relevance to the environment, included under five broad headings: population and urban, human activities, atmosphere, water and landscape. The opportunity has been taken to use the most recently available data to update analysis of topics examined in previous editions. The publication does not aim to present data on all environmental issues and other topics may be covered in future editions.

20/01/2010 [Building Activity, Australia, Sep 2009](#) (ABS cat. no. 8752.0)

Presents building activity statistics, for each state and territory, and for private and public sectors for Australia. Includes number of dwelling units commenced and completed and value of building work commenced, completed, done and yet to be done, all by state and territory. Information is provided for new residential buildings (houses and other residential), alterations and additions to residential buildings and non-residential buildings by type of building (e.g. offices, warehouses, accommodation, etc.). In addition, many series are shown in seasonally adjusted and trend terms, while the value of building work commenced and done is also shown in chain volume measures terms. It includes more comprehensive and updated information to that contained in ABS cat. nos. [8755.0](#) and [8750.0](#).

14/01/2010 [Engineering Construction Activity, Australia, Sep 2009](#) (ABS cat. no. 8762.0)

Contains value of engineering construction work done, commenced and yet to be done, classified by state or territory, commodity (roads, bridges, pipelines etc), sector (public/private) undertaking the work, and sector for whom the work is being done. Includes seasonally adjusted estimates of the value of work done by sector in both current prices and in chain volume measure terms. It includes more comprehensive and updated information to that contained in [ABS cat. no. 8755.0](#).

22/12/2009 [Australian National Accounts: State Accounts, 2008-09 \(Reissue\)](#) (ABS cat. no. 5220.0)

Dissections of various national accounting aggregates by state and territory including gross state product using the expenditure, production and income measures, household income, household final consumption expenditure, government final consumption expenditure, private gross fixed capital formation, public gross fixed capital formation, international trade in exports and imports of goods and services, state final demand, industry gross value added, total factor income by industry, compensation of employees, gross operating surplus and gross mixed income by industry, agricultural income, and various measures of household income. Data are presented in current price and chain volume measures.

10/12/2009 [Historical Selected Agricultural Commodities, by State \(1861 to Present\), 2007-08](#) (ABS cat. no. 7124.0)

This publication contains estimates of agricultural production from 1861 to the present day. Area and production data is available for wheat, oats and barley. Livestock data, including the number of sheep, cattle (meat and milk) and pigs, are also available. All data is available for state/territory and national levels. The latest series of data added to this publication are preliminary estimates obtained from the 2008-09 Agricultural Survey.

09/12/2009 [Mineral and Petroleum Exploration, Australia, Sep 2009](#) (ABS cat. no. 8412.0)

Actual and expected expenditure by private organisations exploring for minerals and petroleum. Mineral exploration expenditure is classified by state and commodity, and data are provided on metres drilled. Petroleum exploration expenditure is classified by onshore/offshore, and from the September quarter 1994, by region.

09/12/2009 [Population by Age and Sex, Australian States and Territories, Jun 2009](#) (ABS cat. no. 3201.0)

Estimates of population for each state and territory classified by sex and single years of age (0 - 84); also grouped ages, sex ratios, median and mean ages of the population.

## Subscribe Me



**SUBSCRIBE ME**

### SUBSCRIBE TO THIS NEWSLETTER

If you wish to provide feedback or subscribe to this newsletter, please contact Helen Marmion on (03) 6222 5902, or email [tasmania.statistics@abs.gov.au](mailto:tasmania.statistics@abs.gov.au). We also encourage you to place this newsletter on your organisation's intranet.

### FUTURE STATISTICAL RELEASES

Want to keep up with the latest releases of ABS products? Subscribe to our [free email notification service](#).

## RSS FEEDS

[RSS \(Really Simple Syndication\)](#) is an alternative way to view the latest statistical information released on the ABS website. You can access RSS feeds for ABS product releases as well as ABS national statistical headlines.

## BOOKMARKS

Did you know you can also bookmark specific ABS statistical products or selected pages on the ABS website? Follow our step-by-step instructions for [bookmarking](#) on the ABS website.

## ABS MOBILE

Keep in touch with the latest statistics when you are on the move with ABS Mobile.

You can access our handheld edition at: [www.abs.gov.au/mobile](http://www.abs.gov.au/mobile).

### Disclaimer

Please note that the ABS has implemented a handheld stylesheet that removes images. This enables us to provide you fast loading pages while on a handheld device. Please note that as a result, some graphs and other images may be removed and to see the full statistical product you should visit the full version of the ABS website.

## About this Release

Tasmanian Statistical News is a quarterly electronic newsletter providing information about new developments including projects, surveys, outposted ABS officers, recent statistical releases, seminars, training and reviews.